

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A method of implanting a bulking device beneath the mucosa in the lower esophagus, comprising the steps of:

puncturing the mucosa with a device having a first cross sectional area;
creating a pocket beneath the mucosa and in communication with the puncture;
enlarging the puncture by introducing a dilator through the puncture; and
introducing a bulking device through the enlarged puncture and into the pocket.

Claim 2 (Currently Amended): A method of implanting a bulking device as in Claim 1, wherein ~~the~~ introducing step a bulking device comprises introducing an expandable bulking device.

Claim 3 (Original): A method of implanting a bulking device as in Claim 2, wherein the bulking device is expandable from an introduction cross sectional area to an enlarged cross sectional area, and the introduction cross sectional area is greater than the first cross sectional area.

Claim 4 (Currently Amended): A method of implanting a bulking device as in Claim 1, wherein ~~the~~ introducing step a bulking device comprises introducing a hydrogel bulking device.

Claim 5 (Original): A method of implanting a bulking device as in Claim 1, wherein the creating a pocket step comprises introducing a volume of fluid beneath the mucosa.

Claim 6 (Original): A method of implanting a bulking device as in Claim 5, wherein the creating a pocket step comprises introducing within the range of from about 0.5 cc to about 5 cc of fluid beneath the mucosa.

Claim 7 (Original): A method of implanting a bulking device as in Claim 5, wherein the fluid comprises saline.

Claim 8 (Original): A method of implanting a bulking device as in Claim 5, wherein the fluid comprises an additive selected from the group consisting of hyaluronic acid, lidocaine, epinephrine, antibiotics, polyethylene glycol, colorants, and contrast media.

Claim 9 (Original): A method of implanting a bulking device as in Claim 5, wherein the introducing a volume of fluid is accomplished using an injection needle.

Claim 10 (Original): A method of implanting a bulking device as in Claim 9, wherein the needle is within the range of from about 18 gauge to about 30 gauge.

Claim 11 (Canceled).

Claim 12 (Currently Amended): A method of implanting a bulking device as in Claim ~~1~~ 11, wherein the dilator removably carries an introducer sheath.

Claim 13 (Original): A method of implanting a bulking device as in Claim 12, further comprising the steps of removing the dilator from the introducer sheath and introducing the bulking device through the introducer sheath and into the pocket.

Claim 14 (Currently Amended): A method of treating a condition in the lower esophagus, comprising the steps of:

creating a pocket beneath the mucosa in the lower esophagus; and
positioning an expandable hydrogel bulking device within the pocket, wherein the bulking device has a diameter prior to implantation within the range of from about 0.2 mm to about 5 mm.

Claim 15 (Canceled).

Claim 16 (Original): A method as in Claim 14, wherein the bulking device is expandable in response to exposure to fluid.

Claim 17 (Canceled).

Claim 18 (Currently Amended): A method as in Claim ~~14~~ 17, wherein the bulking device has a cross section prior to implantation of no more than about 2.5 mm.

Claim 19 (Original): A method as in Claim 14, further comprising the step of removing the bulking device from the pocket.

Claim 20 (Original): A method as in Claim 19, wherein the removing step is accomplished by creating a passageway through tissue to the bulking device.

Claim 21 (Original): A method as in Claim 20, wherein the removing step further comprises using suction.

Claim 22 (Original): A method as in Claim 19, wherein the removing step comprises introducing a solvent to dissolve the bulking device.

Claim 23 (Original): A method as in Claim 22, wherein the solvent comprises DMSO.

Claim 24 (Original): A method as in Claim 19, wherein the removing step is accomplished utilizing a laser.

Claim 25 (Original): A method as in Claim 19, wherein the removing step is accomplished using an energy source.

Claim 26 (Original): A method as in Claim 19, wherein the removing step comprises cutting the bulking device into pieces.

Claim 27 (Currently Amended): A method of explanting a bulking device positioned beneath the mucosa in the vicinity of the lower esophageal sphincter, comprising the steps of :
locating a solid bulking device positioned beneath the esophageal mucosa;
using a cutting tool to create a tunnel through the mucosa; and
applying suction ~~a force~~ to explant the solid bulking device through the tunnel.

Claim 28 (Currently Amended): A method of explanting a bulking device as in Claim 27 ~~34~~, wherein the applying suction ~~a force~~ step is accomplished using an endoscope.

Claims 29–37 (Canceled).

Claim 38 (New): A method of treating a condition in the lower esophagus, comprising the steps of:
creating a pocket beneath the mucosa in the lower esophagus;
positioning an expandable hydrogel bulking device within the pocket; and
removing the bulking device from the pocket by creating a passageway through tissue to the bulking device and using suction.

Claim 39 (New): A method of treating a condition in the lower esophagus, comprising the steps of:

- creating a pocket beneath the mucosa in the lower esophagus;
- positioning an expandable hydrogel bulking device within the pocket; and
- removing the bulking device from the pocket utilizing a laser.

Claim 40 (New): A method of treating a condition in the lower esophagus, comprising the steps of:

- creating a pocket beneath the mucosa in the lower esophagus;
- positioning an expandable hydrogel bulking device within the pocket; and
- removing the bulking device from the pocket using an energy source.

Claim 41 (New): A method of treating a condition in the lower esophagus, comprising the steps of:

- creating a pocket beneath the mucosa in the lower esophagus;
- positioning an expandable hydrogel bulking device within the pocket; and
- removing the bulking device from the pocket by cutting the bulking device into pieces.